## Index of Claims

| Application No. | Applicant(s) |  |
|-----------------|--------------|--|
| 09/912,571      | PUGH ET AL.  |  |
| Examiner        | Art Unit     |  |
| LAGITITIO       | Alt Sint     |  |

| _        | Allowed  |
|----------|----------|
| <b>√</b> | Rejected |

| - | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| ı | Interference |

Hoang-Vu A Nguyen-Ba

| Α | Appeal   |
|---|----------|
| o | Objected |

2122

|          |          | L  |  |              |              | J            |  |                       |       |       |          |                  |          |
|----------|----------|--|--|--------------|--------------|--------------|--|-----------------------|-------|-------|----------|------------------|----------|
| Cla      | aim      | Γ  |  |              | Date         | е            |  |                       | 7:::: | Cla   | aim      |                  |          |
| Final    | Original | 7/20/04  |  |              |              |              |  |                       |       | Final | Original |                  |          |
|          | 1        | 1  |  | †            |              |              |  |                       |       |       | 51       |                  |          |
|          | 2        | ٧  |  |              |              |              |  |                       |       |       | 52       |                  |          |
|          | 3        | 1  |  |              |              | L            | <u> </u>   |                       |       |       | 53       |                  |          |
| <u></u>  | 4        | ٧  |  | ↓_           | ļ            | <u></u>      |  | $\sqcup \!\!\! \perp$ | 4     |       | 54       |                  |          |
| <u></u>  | 5        | V  |  | -            | -            | 1            | <u> </u>   | <u> </u>              | 4     |       | 55       |                  |          |
|          | 6        | 1  |  | +            | -            | -            | H  |                       | 4     |       | 56<br>57 | $\vdash$         |          |
| <u> </u> | 7<br>8   | √<br>√   | $\vdash$   | +            | ├            | ├            |  | $\vdash$              | -     |       | 58       | $\vdash$         | +        |
|          | 9        | 1  |  | ╁╌           | -            | ┢╌           |  | $\vdash$              | -     |       | 59       |                  | +        |
|          | 10       | 1  |  | +            | <del> </del> |              |  |                       | 1     |       | 60       |                  | +        |
|          | 11       | 1  |  | 1            |              | ┢            |  |                       | 7     |       | 61       | H                |          |
|          | 12       | V  | <del>                                     </del> | +            |              |              |  |                       | 7     |       | 62       |                  | 十        |
|          | 13       | V  |  |              |              |              |  |                       | 7     |       | 63       |                  |          |
|          | 14       | √  |  |              |              |              |  |                       |       |       | 64       |                  |          |
|          | 15       | V  |  |              |              |              |  |                       |       |       | 65       |                  |          |
|          | 16       | √  |  |              |              |              |  |                       |       |       | 66       |                  |          |
|          | 17       | V  |  |              |              |              | <u> </u>   |                       | _     |       | 67       |                  | _        |
|          | 18       | V  | $\perp \perp$                                    | _            | ļ            | ļ            | <u> </u>   | _ _                   | 4     |       | 68       |                  | _        |
|          | 19       | √,   | -  | +            |              | <u> </u>     | <b>!</b>   |                       | 4     |       | 69       | $\vdash$         | $\perp$  |
|          | 20       | √  | $\vdash$   | -            | <b>├</b>     | -            | <u> </u>   | -                     | 4:::: |       | 70       | $\vdash$         | +        |
|          | 21       | √  | $\vdash$   | +            | -            | $\vdash$     | -  | $\vdash$              | 4     |       | 71<br>72 | H                |          |
|          | 23       | 1  |  | ╁╌           | 1            |              | 1  | $\vdash$              | -     |       | 73       | H                |          |
| -        | 24       | 1  | <del>  </del>                                    |              | <del> </del> | ┢            | <b>-</b>   |                       | 1     |       | 74       | H                | $\dashv$ |
|          | 25       | Ė  |  | 1            |              |              | <del>                                     </del> |                       |       |       | 75       | H                |          |
|          | 26       | -  |  | 1            |              |              | † <del></del>                                    |                       |       |       | 76       |                  |          |
|          | 27       | Г  |  |              |              |              |  |                       |       |       | 77       |                  |          |
|          | 28       |  |  |              |              |              |  |                       |       |       | 78       |                  |          |
|          | 29       |  |  |              |              |              |  |                       | _     |       | 79       |                  |          |
| L        | 30       | ļ  |  | ļ            | ļ            | <u> </u>     | ļ  |                       | _     |       | 80       | $\sqcup$         |          |
| <u> </u> | 31       | _  |  | +            |              | -            |  | <u> </u>              | _     |       | 81       | $\vdash$         |          |
| -        | 32       | ⊢  |  | +            |              |              |  | -                     | -     |       | 82       | $\vdash$         |          |
| -        | 33<br>34 | -  |  | +            | -            | -            | <u> </u>   | <b>-</b>              | -     |       | 83<br>84 |                  |          |
| $\vdash$ | 35       | -  | $\vdash$   | +            | 1            | -            | -  |                       | -     |       | 85       | $\vdash$         | -+       |
|          | 36       | -  | <del> </del>                                     | +            |              | $\vdash$     | $\vdash$   | $\vdash$              | -     |       | 86       |                  | $\dashv$ |
|          | 37       | H  | <del>                                     </del> | <del> </del> | <del> </del> | <del> </del> | <del> </del> -                                   | l                     | 1     |       | 87       |                  |          |
|          | 38       | T-   | $\vdash$   | 1            | T            | t            | <b>†</b>   |                       | 1     |       | 88       | $\sqcap$         | _        |
|          | 39       |  |  |              |              |              |  |                       |       |       | 89       |                  |          |
|          | 40       |  |  |              |              |              |  |                       |       |       | 90       |                  |          |
|          | 41       |  |  |              |              |              |  |                       |       |       | 91       |                  | ↓.       |
| L        | 42       | <u>L</u>   | $\Box$   |              | <u> </u>     |              | <u> </u>   | _  _                  | 4     |       | 92       | $\sqcup$         |          |
|          | 43       |  |  | ╁-           | ـــ          | _            | <u> </u>   | $\vdash \vdash$       | 4     |       | 93       | $\vdash$         | -        |
| <u> </u> | 44       | <b> </b> -                                       | $\vdash \vdash$                                  | +            | 1            | -            | <b> </b>   |                       | -     |       | 94       | H                | +        |
| -        | 45       | ├-   | $\vdash$   | +            | 1            | $\vdash$     | ├  | -                     | 4     |       | 95<br>96 | ┝                | +        |
|          | 46<br>47 | -  | <del>                                     </del> | +            | ┼            | -            | <del> </del>                                     | $\vdash$              | -     | ļ.,   | 96       | ┝╾┼              | +        |
|          | 48       | ⊢  | <del>                                     </del> | +            | +            | ├            | ╁  | $\vdash$              | -     | -     | 98       | ┢╾┼              | +        |
|          | 49       | -  | <del>                                     </del> | +            | 一            | ├            | <del> </del>                                     | -                     | 1     |       | 99       | <del>  -  </del> | +        |
|          | 50       | <del>                                     </del> |  | +            | 1            | $\vdash$     | <del>                                     </del> | $\vdash$              | 1     |       | 100      | $\vdash$         | +        |
|          |          | <b>.</b>   |  |              | -            | Ь            | Ь  |                       |       | L     |          |                  |          |

|     | Cla   | Date                       |  |   |  |          |          |  |   |          |           |
|-----|-------|----------------------------|--|---|--|----------|----------|--|---|----------|-----------|
|     |       |                            |  |   |  |          |          |  |   |          |           |
|     | 77    | Original                   |  |   |  |          |          |  |   |          |           |
|     | Final | igi                        |  |   |  |          |          |  |   |          |           |
|     | ш     | ŏ                          |  |   |  |          |          |  |   |          |           |
|     |       |                            |  |   | _  |          |          |  |   |          |           |
|     |       | 51<br>52<br>53             |  | _   | L  |          |          |  |   |          |           |
|     |       | 52                         |  |   |  |          |          |  |   |          |           |
|     |       | _53_                       |  |   |  |          |          |  |   |          | _         |
|     |       | 54                         |  |   | <u> </u>   |          |          |  |   |          |           |
|     |       | 55                         |  |   | L  |          |          |  |   |          | L         |
|     |       | 56                         |  |   |  |          |          |  |   |          |           |
|     |       | 56<br>57<br>58             |  |   |  |          |          |  |   |          |           |
|     |       | 58                         |  |   |  |          |          |  |   |          |           |
|     |       | 59                         |  |   |  |          |          |  |   |          |           |
|     |       | 60                         |  |   |  |          |          |  |   |          |           |
|     |       | 61                         |  | _   |  |          |          |  |   |          |           |
|     |       | 62                         |  |   | <u> </u>   | _        |          | <del></del>                                      |   |          |           |
|     |       | 63                         |  |   | $\vdash$   | _        |          |  | - |          |           |
|     |       | 63<br>64                   |  |   |  |          |          |  |   |          |           |
|     |       | 65                         |  |   | <del>                                     </del> | $\vdash$ | <u> </u> | <del>                                     </del> |   |          |           |
|     |       | 66                         | -  | -   | $\vdash$   | _        |          | <u> </u>   |   | _        |           |
|     |       | 67                         | -  | —   | $\vdash$   | $\vdash$ |          |  |   | $\vdash$ |           |
|     |       | 68                         |  |   |  | -        |          |  |   |          |           |
|     |       | 60                         |  |   | $\vdash$   | -        |          | -  |   | -        |           |
|     |       | 69                         |  | _   | <u> </u>   | _        |          |  |   |          |           |
|     |       | 70                         | _  | -   | <u> </u>   | -        |          |  |   |          | _         |
|     |       | 71<br>72<br>73<br>74<br>75 |  | -   |  | _        | _        |  |   |          | -         |
|     |       | 72                         | _  | <u> </u>  | -  | _        |          | <u> </u>   |   |          | -         |
|     |       | /3                         |  | _   | <u> </u>   | _        |          | <u> </u>   |   |          | <u> </u>  |
|     |       | 74                         |  | _   | -  |          |          |  |   |          | <u> </u>  |
|     |       | /5                         |  | _   |  |          | _        | _  |   |          | <u> </u>  |
|     |       | 76<br>77                   | <u> </u>   | <u> </u>  |  |          |          |  |   |          | _         |
|     |       | 77                         | _  | <u> </u>  |  | <u> </u> |          |  |   |          | <u> </u>  |
|     |       | 78<br>79                   | _  | <u> </u>  |  |          |          |  |   |          | <u> </u>  |
|     |       | 79                         |  | $ldsymbol{ld}}}}}}$ |  |          |          |  |   |          |           |
|     |       | 80                         |  |   |  |          |          |  |   |          | _         |
|     |       | 81                         | L  |   |  |          |          |  |   |          | L_        |
|     |       | 82                         | <u></u>  |   |  |          |          |  |   |          |           |
|     |       | 83                         |  |   |  |          |          |  |   |          |           |
|     |       | 84                         |  |   |  |          |          |  |   |          |           |
|     |       | 84<br>85                   |  |   |  |          |          |  |   |          |           |
|     |       | 86                         |  |   |  |          |          |  |   |          |           |
|     |       | 87                         |  | l   |  |          |          |  |   |          |           |
|     |       | 88                         | Г  |   |  |          |          |  |   |          |           |
|     |       | 89                         |  |   |  |          |          |  |   |          |           |
|     |       | 90                         | Г  |   |  |          |          |  |   |          |           |
|     |       | 91                         | Г  |   |  |          |          |  |   |          |           |
|     |       | 92                         |  |   |  |          |          |  |   |          |           |
|     |       | 92<br>93                   | $\Box$   |   |  |          |          |  |   |          |           |
|     |       | 94                         |  | $\vdash$  |  |          |          |  |   |          |           |
| ::i |       | 95                         |  |   |  | Т        | _        | T  |   |          |           |
|     |       | 96                         | <del>                                     </del> | -   |  | $\vdash$ | <u> </u> | ١.   | _ |          |           |
|     |       | 97                         |  | _   |  |          |          | -  |   |          | <b></b> - |
|     | -     | 98                         |  | <u> </u>  | $\vdash$   |          |          |  |   | _        |           |
|     | -     | 99                         |  |   | Ι  | -        |          |  |   |          |           |
|     | -     | 100                        |  |   | <del>                                     </del> |          |          | <u> </u>   |   | _        |           |

| Te   Fig.   Fi | Cl       |     |              |  | [  | Date     | e -      |          |          |  |                 |
|--|----------|-----|--------------|--|--|----------|----------|----------|----------|--|-----------------|
| 101  |          |     |              |  |  |          |          |          |          |  |                 |
| 101  | ल        | ina |              |  |  |          |          |          |          |  |                 |
| 101  | ᇤ        | Ē   |              |  |  |          |          |          |          |  |                 |
| 103   104   105   106   107   108   109   110   111   112   113   114   115   116   117   118   119   120   121   122   123   124   125   126   127   128   129   130   131   132   133   134   135   136   137   138   139   140   141   142   143   144   145   146   147   148   149   149   148   149   149  |          | 0   |              |  |  |          |          |          |          |  |                 |
| 103  |          | 101 |              |  |  |          |          |          |          |  |                 |
| 103  |          | 102 |              |  |  |          |          |          |          |  | П               |
| 106   107   108   109   110   110   111   111   112   113   114   115   116   117   118   119   120   121   122   123   124   125   126   127   128   129   130   131   132   133   134   135   136   137   138   139   140   141   142   143   144   145   146   147   148   149   149   148   149   149   148   149   148   149   148   149   148   149   148   149   148   149   149   144   145   148   149   149   148   149   149   140   141   142   143   144   145   146   147   148   149  |          | 103 |              |  |  |          |          |          |          |  |                 |
| 106   107   108   109   110   110   111   111   112   113   114   115   116   117   118   119   120   121   122   123   124   125   126   127   128   129   130   131   132   133   134   135   136   137   138   139   140   141   142   143   144   145   146   147   148   149   149   148   149   149   148   149   148   149   148   149   148   149   148   149   148   149   149   144   145   148   149   149   148   149   149   140   141   142   143   144   145   146   147   148   149  |          | 104 |              |  |  |          |          |          |          |  |                 |
| 106   107   108   109   110   110   111   111   112   113   114   115   116   117   118   119   120   121   122   123   124   125   126   127   128   129   130   131   132   133   134   135   136   137   138   139   140   141   142   143   144   145   146   147   148   149   149   148   149   149   148   149   148   149   148   149   148   149   148   149   148   149   149   144   145   148   149   149   148   149   149   140   141   142   143   144   145   146   147   148   149  |          | 105 |              |  |  |          |          |          |          |  |                 |
| 108         109         110         111         112         113         114         115         116         117         118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145         146         147         148         149  |          | 106 |              |  |  |          |          |          |          |  |                 |
| 110         111         112         113         114         115         116         117         118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145         146         147         148         149  |          | 107 |              |  |  |          |          |          |          |  |                 |
| 110         111         112         113         114         115         116         117         118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145         146         147         148         149  |          | 108 |              |  |  |          |          |          |          |  |                 |
| 110         111         112         113         114         115         116         117         118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145         146         147         148         149  |          | 109 |              |  | L  |          |          |          |          |  |                 |
| 112         113         114         115         116         117         118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145         146         147         148         149  |          | 110 |              |  |  |          | <u> </u> | L        |          |  |                 |
| 113         114         115         116         117         118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145         146         147         148         149  |          | 111 |              | _  |  |          | <u> </u> | _        |          |  | Щ               |
| 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149  |          | 112 |              | _  |  |          | _        | <u> </u> | <u> </u> |  | Ш               |
| 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149  |          | 113 |              |  | <u> </u>   |          |          |          |          |  | Ш               |
| 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149  | <u> </u> | 114 |              | _  | <u> </u>   | L.,      | _        |          | <u> </u> |  | Ш               |
| 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149  |          | 115 |              | <u> </u>   | _  |          |          | <u>_</u> |          |  | Ш               |
| 118         119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145         146         147         148         149  |          | 116 |              |  | L_   | L        | <u> </u> | <u> </u> | ļ        | <u> </u>   | Ш               |
| 119         120         121         122         123         124         125         126         127         128         129         130         131         132         133         134         135         136         137         138         139         140         141         142         143         144         145         146         147         148         149  |          | 117 | _            | _  |  |          | _        |          |          |  |                 |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 118 |              | L  | <u> </u>   |          | <u> </u> |          |          |  |                 |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 119 |              | L.   | <u> </u>   |          | <u> </u> | <u> </u> |          | L  |                 |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 120 |              |  |  |          |          |          |          |  | Ш               |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 121 | _            | <u> </u>   |  |          | _        |          |          | _  | Ш               |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 122 | _            | <u> </u>   |  | _        |          |          |          | <u> </u>   | Ш               |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 123 |              |  |  |          |          |          |          | <u> </u>   | Ш               |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 124 |              |  | <u> </u>   |          | _        |          |          | <u> </u>   | Ш               |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 125 | ļ            |  |  | $\vdash$ |          | _        | <u> </u> |  | Н               |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 120 |              | <del> </del>                                     | _  | H        |          |          |          | -  |                 |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 127 |              | _  |  | $\vdash$ | -        |          |          | -  | H               |
| 130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 120 |              | ├  |  |          |          |          |          |  | Н               |
| 132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |          | 129 | ┝            | $\vdash$   |  | $\vdash$ |          |          |          | ⊢  | $\vdash$        |
| 132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |          | 131 | ├─           | ├  | -  | H        |          |          | -        | -  | Н               |
| 134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |          | 132 |              | _  |  |          |          |          | ┝        | ├─   | Н               |
| 134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |          | 133 | -            |  |  |          |          |          |          | -  | $\vdash$        |
| 135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 134 |              | <del> </del>                                     |  |          |          |          |          | ╁  | Н               |
| 137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 135 | -            | -  |  | _        | -        |          |          | $\vdash$   | Н               |
| 137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |          | 136 | <del> </del> |  | <del>                                     </del> |          | $\vdash$ |          | $\vdash$ | <del>                                     </del> | $\vdash \vdash$ |
| 140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148<br>149   |          | 137 |              | $\vdash$   |  |          |          |          |          | T  | $\vdash$        |
| 140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148<br>149   |          | 138 |              |  |  |          | T        |          | T        |  | Н               |
| 140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148<br>149   |          | 139 | <u> </u>     | Ι-   | <b> </b>   | T        |          | <u> </u> | Ι        | <del>                                     </del> | Н               |
| 141  |          | 140 |              | <del>                                     </del> | l  |          | l        | T -      | Г        | T  | $\vdash$        |
| 142  |          | 141 | <u> </u>     |  |  |          |          |          |          |  | М               |
| 143  |          |     |              |  |  |          |          |          |          |  | П               |
| 144  |          |     |              |  |  |          |          |          | 1        | Γ  | П               |
| 145  |          |     |              |  |  |          |          |          |          |  | П               |
| 146<br>147<br>148<br>149   |          | 145 |              |  |  |          |          |          |          |  | П               |
| 147<br>148<br>149  |          | 146 |              |  |  |          |          |          |          |  | П               |
| 149  |          | 147 |              | L  |  |          |          |          |          |  | П               |
| 149  |          | 148 |              |  |  |          |          |          |          |  |                 |
| 150  |          | 149 |              |  |  |          |          |          |          |  |                 |
| ······   | L        | 150 |              |  |  |          |          | L        |          |  |                 |